Operation Warped Science

Excerpts from "Cold War Anthology": by David Price | | CHAPTER 8:

"At the CIA, Richard Helms authorized $25 million in funds for Dr. Sidney Gottlieb and the CIAs Technical Services Division for MK-Ultra projects studying human responses to drugs and environmental conditions that could manipulate individuals to perform behaviors against their will (McCoy 2006: 28-29). Bluebird and Artichoke, two agency operations, studied the possible uses of psychotropic drugs in interrogation. These operations' research methods included dosing unsuspecting people with strong chemical agents like LSD, DMT, liquid concentrates of THC, or opiates. Some research placed unwitting prisoner, civilian, or military research subjects at risk, at times leaving individuals with permanent damage. Between 1955 and 1965, the CIA relied on a funding front, operating under the names the Society for the Investigation of Human Ecology (1955-61) and the Human Ecology Fund (1961-65), to pass on CIA MK-Ultra funds to unwitting social science and medical researchers doing work that had applications for CIA projects, including the agency's Kubark Counterintelligence Interrogation manual. The first of these organizations, sihe, was established in New York City in 1955 by neurologist Harold Wolff.

Human Ecology lied to some anthropologists concerning the potential uses of their research. In one instance, Cornell University "hired an anthropologist before learning that the CIA security office would not give her clearance, [Harold] Wolff simply lied to her about where the money came from" Sidney Gottlieb envisioned Human Ecology enabling the CIA to "keep in touch with that part of the scientific research community which were in areas that we were interested in and try to — usually its mode was to find somebody that was working in an area in which we were interested and encourage him to continue in that area with some funding from us"

Human Ecology, China, Hungary, and Elsewhere the CIA used Harold Wolff's presence at Cornell to investigate ways to take Chinese citizens living in the United States and, as Lawrence Hinkle put it, "steer them to [the CIA], and make them into agents" (qtd. in Marks 1979:149). Human Ecology sponsored Cornell projects investigating ways to train recruited Chinese agents to resist Chinese brainwashing.

Lawrence E. Hinkle Jr. and neurologist Harold G. Wolff became the heart and mind of Human Ecology's CIA inquiries. In one sense, the details of Human Ecology's use of CIA funds to commission specific research are extraordinary; in another sense, they are not. Given congressional and media revelations of the extent of covert CIA funding of unwitting academics during this period, perhaps the most remarkable feature of this Human Ecology research is that we can trace the CIA funds and what CIA project it was used for — not that it was financed by CIA funds.

-Expenses for the Society for the Investigation of Human Ecology's expenses included a high-rent townhouse ($1,200 a month) and $180,000 a year in salaries and other operating expenses; the organization spent $5 million of CIA funds during its last three years.

-In 1935, Wolff experimentally induced and measured controlled headaches in research subjects at Cornell (Science News 1935).
[https://www.legacy.com/us/obituaries/nytimes/name/lawrence-hinkle-obituary?pid=155535647]
https://library.weill.cornell.edu/sites/default/files/human_ecology.pdf

---

The Naval Biosciences Laboratory Cell Culture Project was supervised for the VCP by Dr. James Duff and Dr. Jack Gruber. Duff had been a microbiologist at Fort Detrick for 12 years before joining the NCI. His biography lists research into clostridium botulinum toxins and psittacosis vaccines. Botulinum toxins cause botulism food poisoning and are among the most toxic substances known. I t was during the period when Duff was at Fort Detrick that the U.S. Army stockpiled botulinum toxin weapons. After serving for eight years at Fort Betrick, Gruber moved to NCU.

Industrial contractors and the Viral Cancer Program. Charles Pfizer and Company, a pharmaceutical firm, had a contract with the NCI which included production of "a large quantity of a variety o f viruses" for the VCP. The immunosuppressive Mason-Pfizer monkey virus was grown in large quantities, and other animal cancer viruses were adapted to grow in human cell lines. During the same period.

As of **January 1992**, **Pfizer is the sixth largest drug company** in the world. It does over $4 billion a year, according to Standard and Poor's. The company banks with Rockefeller's Chase Manhattan Bank. Pfizer's chairman, Edmund T. Pratt, Jr., was controller of IBM from 1949 to 1962; he is now a director of Chase Manhattan Bank, GM, and International Paper. Some of the directors of Pfizer are Grace J. Flippenger, secretary-treasurer of the $10 billion a year NYNEX Corporation and Paul A. Marks, chief of the Sloan Kettering Cancer Center since 1980 and a director of cancer treatment at the National Cancer Institute, director of the American Association for Cancer Research and a director of the $100 million Revson Foundation.

In 1971, when Nixon announced that Fort Detrick would be converted into a center for cancer research, the buildings were decontaminated and the facilities were turned over to the NCI, which renamed the facility the Frederick Cancer Research Center. Litton-Bionetics (formerly Bionetics Research from 1966-1968) was named as the prime contractor. Litton Bionetics worked extensively on the dispersion of BW agents from aircraft and included Air Force contracts for "the supersonic delivery of dry biological agents". One of the Bionetics Research Laboratories' most important NCI contracts was a massive virus inoculation program that began in 1962 and ran until at least 1976, and used more than 2,000 **monkeys**. **Dr. Robert Gallo**, **the controversial head of the current United States AIDS research program at NCI an**d Dr. Jack Gruber were project officers for the inoculation program.

The SVLP was renamed in **1969-** becoming the Special Virus Cancer Program [SVCP].
In 1951, the Secretary of Defense moved the Military Liaison Committee to the Pentagon. Its chairman became the Deputy to the Secretary of Defense for Atomic Energy Matters. In 1953, this position was renamed Assistant to the Secretary of Defense for Atomic Energy. The National Defense Authorization Act for Fiscal Year 1987 (P.L. 99-661, passed in November 1986) abolished the Military Liaison Committee, replacing it with the Nuclear Weapons

Council. Just over a year later, the National Defense Authorization Act for Fiscal Years 1988–1989. It created the position of Assistant to the Secretary of Defense (Atomic Energy).

US ARMY– Medical Research and Development Research–USAMRDC [US Army Medical Research and Development Command]

In 1994, the Assistant to the Secretary of Defense (Atomic Energy) was given control over the Defense Nuclear Agency (DNA), which became the Defense Threat Reduction Agency. In February 1996, the National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106) officially created the office of the Assistant to the Secretary of Defense for Nuclear & Chemical & Biological Defense Programs, or ASTD (NCB) to replace that of the Assistant to the Secretary of Defense (Atomic Energy).

USAMRDC

The Department of Defense (DoD) established the CBDP in 1994 to provide chemical and biological defense capabilities in support of national military strategies. In accordance with 50 USC 1522, research, development, and acquisition (RDA) of chemical and biological defense programs within the DoD are overseen by a single office within the Office of the Secretary of Defense. The Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs (ATSD[NCB]) serves as this single office. The Deputy Assistant for Chemical and Biological Defense and Chemical Demilitarization Programs serves as the principal deputy to the ATSD(NCB) for accomplishing overall oversight and integration of the DoD CBDP.

USAMRDC supports JSTO-CBD's planning and program management of that portion of the CBDP, including research performed at the following key USAMRDC laboratories: U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), U.S. Army Medical Research Institute of Chemical Defense (USAMRICD), and Walter Reed Army Institute of Research (WRAIR). In support of JSTO-CBD, the PSD, through its web-based program build process, facilitates planning for chemical and biological defense research at other service laboratories as well as other government laboratories and federally funded research and development centers. The PSD assists USAMRIID, USAMRICD, and WRAIR in reporting on the execution of medical chemical and biological S&T research funded by JSTO-CBD. The PSD also assists JSTO-CBD in executing assigned congressional special interest chemical and biological S&T research.

Argus:

According to a 2008 article in Security Management Magazine, ARGUS had already detected outbreaks before they became pandemics.

Examples of detected outbreaks included the appearance of Ebola in the Democratic Republic of Congo, the spread of the H5N1 avian flu from China into Russia, and a minor hoof-and-mouth outbreak in the United Kingdom.

The ARGUS program utilized software to analyze global information networks, including the Internet and news media, for indicators of potential epidemics.

It searched for specific keywords and patterns such as heavy rates of absenteeism, runs on pharmaceutical drugs, and migration away from villages and towns.

Georgetown College sued former employees Dr. James M. Wilson and Mark Polyak for refusing to surrender their patent rights to inventions developed for Project Argus.

Georgetown alleged that its employment policy required the defendants to surrender their patent rights and sought an order directing them to do so.

Overall, the ARGUS program developed by Georgetown University, in collaboration with MITRE Corp., aimed to provide early detection and warning of infectious disease outbreaks on a global scale, with notable successes in detecting potential pandemics before they escalate.

Chemical Biological Defense Program

CBDP science and technology (S&T) programs are managed by the Defense Threat Reduction Agency's (DTRA's) Joint Science and Technology Office for Chemical and Biological Defense (JSTO-CBD). The JSTO-CBD is designated as the Chemical and Biological Technologies Directorate of the DTRA and is responsible for the management, integration, and execution of medical chemical and biological defense S&T programs within the DoD. The Chemical Biological Defense Partnership Support Directorate (PSD), which is a staff office under the Commanding General, USAMRDC, supports JSTO-CBD through the development and maintenance of an interactive web site for the management of all intramural chemical and biological defense S&T proposals. The Joint Chemical Biological Defense Research Program web site facilitates proposal management for all laboratories within the DoD, as well as other U.S. Government agencies, including the Department of Energy, Department of Health and Human Services.

The Clinton administration declined to nominate an Assistant to the Secretary of Defense for Nuclear & Chemical & Biological Defense Programs between 1997 and 2001, having determined (as part of its Defense Reform Initiative) that the position should be eliminated. Congress insisted that the Pentagon maintain the office, arguing it was necessary to ensure appropriate senior-level policy oversight and implementation guidance within the Department of Defense.

In January 2011, President Obama signed the National Defense Authorization Act for FY 2011, renaming the Assistant to the Secretary of Defense for Nuclear & Chemical & Biological Defense Programs the Assistant Secretary of Defense for Nuclear, Chemical & Biological Defense Programs. [wiki]

[https://www.defense.gov/News/FeatureStories/Story/Article/3603047/]

Harold Wolff died in 1962, a year before the CIA finished the Kubark manual; Hinkle remained at Cornell for decades. Without fanfare, the Human Ecology Fund closed its doors on June 30,1965 . A decade later, its CIA ties were exposed. In the end, psychology was the discipline that provided the most useful MK-Ultra-funded interrogation research, but anthropology also unwittingly contributed to these programs. It was no accident that the Senate 1977 hearings investigating MK-Ultra's co-option of academic research did not probe into the details of Human Ecology's few witting academicians who sought and coordinated academic research that aligned with the covert interests of the CIA. When CIA psychologist John Gittinger's testimony drifted into discussions of the individuals working within Human Ecology who knew of the CIA s secret sponsorship of unwitting researchers, Senator Edward Kennedy stopped Gittinger and told him that the committee was "not interested in names or institutions, so we prefer that you do not [identify them]. That has to be worked out in arrangements between [dci] Admiral Turner and the individuals and the institutions. Bui were interested in what the Foundation really was and how it functioned and what its purpose was" (U.S. Senate 1977; 59).28 The Senates decision to not delve further into the campus-CIA articulations leaves us with only outlines of how these interactions worked.29 Though the Senate did not investigate the specific individuals involved in MK-Ultra's academic links. Expenses for the Society for the Investigation of Human Ecology's expenses included a high-rent townhouse ($1,200 a month) and $180,000 a year in salaries and other operating expenses; the organization spent $5 million of CIA funds during its last three years .

-October 18, 1971: Fort Detrick Army's BDRC would be converted to the leading Cancer Center. In 1969, Nixon ordered a halt to offensive biological warfare (BW) research and weapons stockpiling by the United States. The U.S. Army was directed to destroy its toxins, viruses, and bacteria (supposedly) with heat and disinfectants by May 1972; the planned "disposal" of the scientific personnel associated with the program was not so easy. Some of these "biowarriors" went to the CIA.
Two main locations: U.S. Army's Fort Detrick in Frederick, Maryland has been the "parent research and pilot center for biological warfare." During the 1960's, the CIA paid the facility $100,000 a year for BW and chemical agents and their delivery systems. The other, the Naval Biosciences Laboratory in Oakland California which focused on the plague & helped in conducting the top-secret open air bioweapon analogues over the San Francisco area throughout the 1950's
– **June 1977**, five years after the U.S. had signed an agreement not to produce these products, the VCP produced 60,000 liters of cancer-causing and immunosuppressive viruses.. It was during the period when Duff was at Fort Detrick that the U.S. Army stockpiled botulinum toxin weapons.

On **March 25**, **1992**, it was reported on television that an interesting development was starting to occur with servicemen that had served in Desert Storm. It will be recalled by some that all the troops that were to participate in the campaign were vaccinated with an experimenta1 vaccine; now it is reported, a year later, that some of the troops are experiencing chronic fatigue syndrome and hair loss. It sounds like the symptoms of radiation poisoning, but the only thing all the troops had in common is this vaccination.

The USDA has been seeking funding since 1999 to upgrade Plum Island into a so-called "Level Four" biosecurity lab. The only large-animal facility in the world with that status as of September 11, 2001 was in Australia."

Since then, the federal biodefense research budget has expended from $305 million per year to nearly $4 billion, Baltimore Sun reporter Scott Shane wrote on February 11, 2004. But the biggest chunk of the new money, Shane said, is to be spent on building a "national biodefense campus" at Fort Detrick, Maryland.

The NCI scientific director for viral oncology and chairman of the SVCP is John B. Moloney. Under Moloney served three branch chiefs, Robert Manaker, Robert J. Huebner, and George Todaro. The names of the three branches, which, by and large, differ from one another as much as their respective functions, are the viral biology branch (Manaker), the viral carcinogenesis branch (Huebner), and the viral leukemia and lymphoma branch (Todaro).
https://www.bibliotecapleyades.net/archivos_pdf/special-virus-cancer-program.pdf
This is to include replacing the existing U.S. Army biodefense unit at Fort Detrick, at estimated cost of up to $1 billion; building a $105 million Integrated Research Facility for the National Institutes of Health; and building a $120 million National Biodefense Analysis & Countermeasure Center to do "threat characterization" for the Department of Homeland Security. All would do animal research. The Integrated Research Facility would be chiefly an animal research lab.

SIP –Special Immunization Program:

The Special Immunization Program (SIP) was a significant initiative in the United States, aimed at providing additional protection to laboratory workers against infectious diseases. It was part of a broader effort to enhance biosafety practices, particularly in the context of biological weapons research and development.

The SIP began at Fort Detrick, Maryland, which was a major center for the U.S. biological weapons program from 1943 to 1969. The program was designed to ensure the safety of personnel working with potentially hazardous biological agents. The SIP was an important component of the broader safety measures that were developed at Fort Detrick, which have since become foundational principles of biosafety. These principles include risk assessment, standard microbiological practices, containment, and facility safeguards. The SIP was also notable for its use of investigational vaccines, which were administered to participants without the need for informed consent as required by regulations such as the Army Regulation AR 70-25. This was justified by the unique risks faced by the personnel involved in the program. The SIP was part of a broader effort to improve public health through immunization programs. For example, the Vaccines for Children Program (VFC) was established in 1994 to provide vaccines at no cost to children who might not otherwise have access to them. This program was designed to eliminate cost barriers to vaccination and improve vaccination rates among children.

The history of the Special Immunization Program is a testament to the importance of proactive measures in ensuring the safety of personnel working with potentially hazardous biological agents. It also highlights the broader impact of immunization programs in improving public health and reducing the burden of infectious diseases. Vaccines for the SIP were initially produced at Fort Detrick, with quality control issues arising from small-scale production methods. In the 1960s, large-scale production was contracted out to commercial manufacturers to improve quality and supply.

The Special Immunizations Program (SIP) at Fort Detrick began as an immunization program to provide an additional measure of protection of laboratory workers against occupational infections. A Special Procedures Section [SPS] performed medical examinations on personnel assigned to work in the biowarfare sections, saved blood samples—which also allowed the detection of asymptomatic infections, and maintained records. Immunization of laboratory workers was mandatory, and the use of investigational vaccines was considered essential for occupational safety when licensed vaccines were not available. Over time, the SIP extended the use of its investigational vaccines to laboratory workers involved in biological defense (biodefense) research projects throughout the United States and Canada at 117 external sites.

1953- Fort Detrick, Maryland to provide investigational vaccines to military personnel conducting research with hazardous pathogens like Coxiella Burnetii (Q fever) and Venezuelan equine encephalitis virus.
1954- The USDA took over Plum Island from the Army.
1955. The SVLP was renamed in 1969, becoming the Special Virus Cancer Program [SVCP].
1961 to 1971- As the NCI contractor, Pfizer conducted a secret study for the U.S. Army "into the growth and culture media for unspecified biological agents."
[1964-1969] The Special Virus Leukemia Program was inherited from the National Cancer Institute's [NIC] Chemotherapy programs. Their unofficial motto was *"Nothing too stupid to test."* While at the NCI the Chemotherapy program had received $330M since
1966- Dr. Anthony Fauci Graduates from Cornell Medical.
The SVCP in 1971 had a budget of over 36M. Lead Scientists in 1971 for the SVCP: John B Moloney, Robert A. Manaker, Robert J. Huebner, George J. Todaro Jr.
1962- Robert McNamara US Sec of Def, authorized Project 112.
1962- the Special Procedures Section became the SIP
1964-1969: Special Virus Leukemia Program
1966- NY subway Biowarfare Tests: Bacillus G. bacteria released in the subways.
1971- National Cancer Act is passed.
1972- The U.S. signed the Biological Weapons Convention (BWC), converting all programs at Fort Detrick into defensive programs only.
1972- Federal regulation of biologics was transferred to the Food and Drug Administration (FDA),
1974- [Dec]-NCI & National library of Medicine establish CANCERLINE, a computer service for cancer research.
1974: [Dec] Established the Clinical Cancer Education Program.
1975-Senator Church Committee Hearings
1975- The establishment of the Frederick Cancer R&D Center [later renamed the Frederick National Laboratory for Cancer Research]
1976- [Thomas Massey -anecdotal story from veteran in spaces]-Philadelphia Legionnaires /Swine Flu. Massey Joines in October 1976 and the outbreak was just months prior, in July of 1976. All the troops were given it. A lot got ill, some died.
- This means the 76' Swine Flu Vax was delivered in 3-4 months.[Roche & Meroux ?]

1977- Animal Production: the Frederick Cancer Research Center produced & distributed 621,860 experimental animals mainly: guinea pigs, mice, & rats.
1977-August-Dr. M.G. Hanna Jr, the Director of cancer biology became acting chief of the Animal Resources Program
1977- Senators Kennedy & Inouye hold Senate committee hearing on Scientific Research.
1977- June: five years after the U.S. had signed an agreement not to produce these products, the VCP produced 60,000 liters of cancer-causing and immunosuppressive viruses.
1984- Anthony Fauci becomes Director of the NIAID.
1984- Gruber became lead of the Cancer Etiology Division of the National Institutes of Health.
1987 - A memorandum of understanding (MOU) between the Department of Defense (DOD) and FDA that allowed the exempt use of investigational biologics in the SIP or Force Health Protection Program ended, shortly thereafter, the SIP underwent marked change.
2023- The Department of Defense transitioned the legacy SIP to commercial partners Defender Pharmaceuticals and Sabin Vaccine Institute.

Special Immunization Program [SIP]: Special Immunization Program uses
unlicensed vaccines to protect at-risk Soldiers and DA Civilian employees.
The U.S. Army Medical Research and Materiel Command manages the Special Immunization Program. [UNCLASSIFIED Army Regulation 385–10] +
[https://arkansas.nationalguard.mil/Portals/29/AR_385_10_Army_Safety_Program.pdf]
https://www.finance-watch.org/wp-content/uploads/2019/05/Making-Finance-Serve-Nature_Finance-Watch-Report_24May2019_web.pdf

Special Immunization Program [SIP]: Special Immunization Program uses unlicensed vaccines to protect at-risk Soldiers and DA Civilian employees. The U.S. Army Medical Research and Materiel Command manages the Special Immunization Program. A timeline covering the key milestones and events of the Joint Program Executive Office (JPEO), U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), the Special Immunization Program (SIP), and the Special Virus Cancer Program (SVCP):

Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND)

2003: JPEO-CBRND was established to enhance the Department of Defense's (DoD) ability to respond to chemical, biological, radiological, and nuclear (CBRN) threats. It consolidates multiple program management offices to streamline acquisition and sustainment of CBRN defense equipment.
2005: JPEO-CBRND oversees the Joint Project Manager Guardian, responsible for the Chemical Biological Defense Program.
2014: Major reorganization within the JPEO-CBRND to improve coordination and rapid response capabilities.

2020: JPEO-CBRND plays a critical role in the response to the COVID-19 pandemic, including the development and distribution of vaccines and therapeutics.

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)

1969: USAMRIID was established at Fort Detrick, Maryland, to conduct research on biological threats and develop medical countermeasures.

1989: USAMRIID scientists identified the Ebola virus strain causing an outbreak in Reston, Virginia.

2001: USAMRIID played a key role in the response to the anthrax attacks in the United States, providing expertise and laboratory support.

2014: USAMRIID supported the international response to the Ebola outbreak in West Africa by developing diagnostics, treatments, and providing personnel.

2020: USAMRIID contributes to the COVID-19 response, including testing and development of vaccines and treatments.

Special Immunization Program (SIP)

1950s–1960s: SIP was initiated to protect military personnel working with hazardous pathogens. It provides vaccines and immunizations for diseases not covered by standard military immunization programs.

1990s: SIP expands to include a broader range of pathogens, such as Q fever, anthrax, and tularemia.

2001: Following the anthrax attacks, the SIP is highlighted for its role in protecting researchers and first responders.

2010s: SIP continues to evolve, incorporating new vaccines and protocols to address emerging infectious diseases and biodefense needs.

2020: SIP adapts to include immunization for COVID-19 for military personnel and associated researchers.

Special Virus Cancer Program (SVCP)

1964: The National Cancer Institute (NCI) establishes the SVCP to investigate the link between viruses and cancer.

1966: SVCP gains significant funding and attention, promoting extensive research into oncogenic viruses.

1971: President Richard Nixon announces the "War on Cancer," which bolsters support for the SVCP.

1970s: SVCP research leads to significant discoveries, including the identification of reverse transcriptase by Howard Temin and David Baltimore, advancing the understanding of how viruses can cause cancer.

1980s: Research from SVCP contributes to the discovery of the human T-lymphotropic virus (HTLV) and human papillomavirus (HPV) as causative agents for certain cancers.

1990s–Present: The legacy of the SVCP continues through ongoing research into viral oncology, leading to vaccines like the HPV vaccine, which prevents virus-related cancers.

Each of these programs and institutions has played a vital role in advancing public health, military readiness, and scientific knowledge, often intersecting in their missions to protect against infectious diseases and biothreats.

How does the JPEO, USAMRIID, the Special Immunization Program, and the Special Virus Cancer Program relate to each other?

The Joint Program Executive Office (JPEO), U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), the Special Immunization Program (SIP), and the Special Virus Cancer Program (SVCP) are interconnected through their shared goals of advancing public health, biodefense, and medical research, though they each have distinct primary functions. Here's how they relate to each other:
Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND)

Role and Mission: JPEO-CBRND oversees the development, acquisition, and fielding of CBRN defense equipment and medical countermeasures for the DoD.

Connection to Other Programs:

Works closely with USAMRIID to ensure that research findings are translated into practical defense capabilities and medical countermeasures.

Coordinates with SIP to ensure that military personnel and relevant researchers are adequately immunized against biological threats, supporting readiness and resilience against potential bioterrorism or warfare scenarios.

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)

Role and Mission: USAMRIID conducts research on infectious diseases, particularly those that pose a threat to military personnel and national security. It develops vaccines, diagnostics, and treatments for high-threat pathogens.

Connection to Other Programs:

Collaborates with JPEO-CBRND to transition its research into deployable medical countermeasures.

Plays a crucial role in the SIP by developing and providing vaccines and immunizations for military personnel who work with dangerous pathogens.

Although its primary focus is not cancer, USAMRIID's research on viral pathogens can intersect with SVCP research, especially in understanding virus-host interactions and the mechanisms by which some viruses may cause cancer.

Special Immunization Program (SIP)

Role and Mission: SIP provides vaccines to military personnel and researchers working with hazardous pathogens that are not covered by standard immunization programs.

Connection to Other Programs:

Relies on USAMRIID for the development and provision of these specialized vaccines.

Supported by JPEO-CBRND in terms of logistics, funding, and policy coordination to ensure that immunization protocols are integrated into broader defense strategies.

SIP's vaccines and immunizations are essential for the safety of personnel involved in biodefense research and operations, ensuring they are protected against pathogens that are the focus of USAMRIID and JPEO-CBRND efforts.

Special Virus Cancer Program (SVCP)

Role and Mission: SVCP was established to investigate the link between viruses and cancer, fostering significant advancements in understanding viral oncology.

Connection to Other Programs:

While SVCP primarily focuses on cancer research, the scientific insights gained (e.g., understanding of viral mechanisms and immune responses) can inform USAMRIID's research on infectious diseases.

USAMRIID's and SVCP's research can overlap in areas such as viral pathogenesis and vaccine development, benefiting both cancer research and the development of biodefense countermeasures.

Indirectly supports SIP by contributing to the broader knowledge base on viral infections and immune responses, which can enhance vaccine strategies for both infectious diseases and cancer prevention. Collaborative Research: USAMRIID and SVCP contribute foundational research that supports the development of vaccines and treatments for both infectious diseases and virus-associated cancers.

Operational Integration: JPEO-CBRND ensures that the findings and developments from USAMRIID and SVCP are incorporated into defense strategies and medical countermeasures, while SIP operationalizes the protection of personnel through immunizations.

Shared Goals: All these programs and institutions work towards the common objectives of protecting public health, ensuring military readiness, and advancing scientific knowledge to combat biological threats, whether they are infectious diseases or virus-related cancers.

1950s–1960s: MKUltra and Controversial Research & The Human Ecology Fund at Cornell

Human Ecology Society / Human Ecology:

1943: The concept of "human ecology" begins gaining traction within academic circles, focusing on the relationships between humans and their environments.

1948: The Society for Human Ecology is established to promote the study and application of human ecology principles, bridging various disciplines such as biology, sociology, and anthropology.

1950s: Emergence and CIA Involvement

1951: The Human Ecology Fund (HEF) is created, originally conceived as an academic grant-making body to support research in human ecology.

1952: The CIA begins using the Human Ecology Fund as a front organization to finance mind control and behavior modification research under Project MKUltra, a secret program aimed at developing techniques for interrogation and psychological manipulation.

1953: MKULTRA is officially sanctioned, and the Human Ecology Fund plays a crucial role in channeling CIA funds to various research projects, often without the recipients' knowledge of the true funding source.

1956: Dr. Harold Wolff of Cornell University's Medical College becomes a key figure in the Human Ecology Fund, directing significant research efforts into stress, brainwashing, and psychological manipulation.

1960s: **Peak Activity and Public Scrutiny**

1963: The Human Ecology Fund expands its influence, supporting a wide array of psychological research projects across numerous universities and institutions.

1964: Journalist Seymour Hersh begins investigating the Fund's connections to the CIA, though significant details remain hidden from the public.

1965: John Marks, a former State Department officer, later exposes much of the Human Ecology Fund's clandestine activities in his book "The Search for the Manchurian Candidate."

1970s: **Exposure and Termination**

1973: Amid growing scrutiny, CIA Director Richard Helms orders the destruction of MKUltra records. However, some documents survive, eventually leading to revelations about the Human Ecology Fund's true activities.

1974: New York Times journalist Seymour Hersh publishes an article detailing CIA domestic operations, including MKUltra and the Human Ecology Fund, prompting widespread public outrage.

1975: The Church Committee, led by Senator Frank Church, investigates the CIA's domestic surveillance and mind control experiments, including those funded by the Human Ecology Fund.

1977: The U.S. Senate holds hearings on MKUltra, revealing the extent of the Human Ecology Fund's involvement in unethical research practices. The fund is effectively dissolved as a result of these investigations.

1980s–Present: **Legacy and Ethical Implications**

1980s: Academic and public discourse on ethics in research intensifies, partly as a response to the revelations about the Human Ecology Fund and similar programs.

1990s: Researchers and historians continue to uncover and analyze the implications of the Human Ecology Fund's activities, contributing to the establishment of stricter ethical standards in scientific research.

2000s–Present: The legacy of the Human Ecology Fund and MKUltra informs contemporary discussions on informed consent, ethical oversight, and the responsibilities of funding agencies.

Joe Biden has had a long and varied voting history on issues concerning scientific research, bioweapons, and public health throughout his tenure in the U.S. Senate and as Vice President

Key points from his voting record and policy positions:

Support for Research Funding:

Biden has generally been supportive of federal funding for scientific research. For instance, he supported the American Recovery and Reinvestment Act of 2009, which included significant funding for scientific research and innovation.

Biological Weapons Convention (**BWC**):

Biden has supported international efforts to control biological weapons. He has endorsed policies that strengthen the BWC and other arms control measures. His broader foreign policy perspective often included arms control and non-proliferation initiatives (Wikipedia).

Patriot Act and Bioterrorism Preparedness:

In the wake of the 9/11 attacks, Biden voted for the USA Patriot Act, which included provisions to enhance the nation's bioterrorism preparedness. This vote reflected his stance on strengthening national security against bioweapons threats (Wikipedia).

Cancer Moonshot Initiative:

Biden spearheaded the Cancer Moonshot Initiative aimed at accelerating cancer research. This initiative sought to enhance coordination among researchers, streamline the regulatory process for new therapies, and improve data sharing (Wikipedia).

Vaccination and Immunization Programs:

Biden has been a strong supporter of vaccination programs. He has advocated for federal funding to support vaccination efforts, particularly during his tenure as Vice President when combating the H1N1 flu pandemic (Wikipedia).

Timeline of Key Events

2013: Establishment of DoD-ADM

The collaboration between the Department of Defense (DoD) and Ology Bioservices, now a subsidiary of National Resilience, has developed over the past decade with a focus on manufacturing medical countermeasures (MCMs) against biological threats. The DoD awarded Nanotherapeutics, Inc. (later rebranded as Ology Bioservices) a contract to establish the DoD Advanced Development and Manufacturing (ADM) facility. This facility, located in Alachua, Florida, was designed to produce biological MCMs to protect military personnel from chemical and biological threats .

2017: Facility Opening

The DoD-ADM officially opened, featuring four independent processing suites compliant with current Good Manufacturing Practices (cGMP) and Biosafety Level 3 (BSL-3) standards (DVIDS).

2020: Acquisition by National Resilience

In April 2021, National Resilience acquired Ology Bioservices. The partnership expanded to address the global COVID-19 pandemic by increasing the facility's manufacturing capabilities, including the addition of new drug substance processing suites and automated drug product filling and packaging capabilities.

2022: Major Contract Award

In February 2022, the DoD awarded Ology Bioservices a contract worth up to $250 million to develop and manufacture a monoclonal antibody treatment for botulinum neurotoxins (BoNT). This contract underscores the strategic importance of the facility in responding to biological threats (BusinessWire).

Ongoing Efforts:

The DoD-ADM has supported the development of various MCMs, including monoclonal antibodies for COVID-19 and botulinum toxin. The facility is designed to provide rapid response capabilities and support the production of vaccines and therapeutics using advanced manufacturing technologies (JPEO CBRND).

Timeline, history and achievements of the DoD's Advanced Development and Manufacturing (ADM)

2013: **Establishment**:

Contract Award: The DoD awarded Nanotherapeutics, Inc. (later rebranded as Ology Bioservices) a contract to establish the ADM facility. The facility was designed to develop and manufacture biological medical countermeasures (MCMs) to protect military personnel from chemical and biological threats.

2017: **Facility Opening**:

Official Opening: The DoD-ADM facility in Alachua, Florida, officially opened. The state-of-the-art facility featured four independent processing suites, compliant with current Good Manufacturing Practices (cGMP) and Biosafety Level 3 (BSL-3) standards, to produce vaccines, therapeutics, and other MCMs.

2018–2019: **Early Operations**:

Initial Projects: The facility began its operations by focusing on developing MCMs for various biological threats, including viral and bacterial pathogens. Early projects included producing therapeutics for chemical warfare agents and developing vaccine candidates for emerging infectious diseases (DVIDS) (BusinessWire).

2020: **COVID-19 Pandemic Response**:

Rapid Response: The ADM played a critical role in the U.S. response to the COVID-19 pandemic. It supported the rapid development and manufacturing of monoclonal antibodies and other therapeutics to combat the virus. The facility's capabilities were leveraged to accelerate the production of these critical countermeasures.

2021: **Acquisition by National Resilience**

Strategic Expansion: In April 2021, National Resilience acquired Ology Bioservices, which further enhanced the facility's capabilities. This acquisition expanded the ADM's infrastructure, allowing it to increase its manufacturing output and support a broader range of MCM projects.

2022: **Major Contract Award**

Botulinum Neurotoxin Treatment: In February 2022, the DoD awarded Ology Bioservices a contract worth up to $250 million to develop and manufacture a monoclonal antibody treatment for botulinum neurotoxins (BoNT). This contract highlighted the ADM's strategic importance in addressing bioterrorism threats (BusinessWire).

Enhanced Biodefense Capabilities:

The ADM has significantly enhanced the U.S. military's ability to respond to biological threats. By providing rapid development and manufacturing capabilities, the facility ensures that the DoD can quickly produce vaccines and therapeutics in response to emerging threats.

Support During the COVID-19 Pandemic:

The ADM's infrastructure was crucial in the rapid development and scale-up of COVID-19 therapeutics. This capability helped mitigate the impact of the pandemic on military and civilian populations

Advanced Manufacturing Technologies:

The facility employs advanced manufacturing technologies, such as single-use systems and continuous manufacturing processes, to increase efficiency and flexibility in producing MCMs. These technologies reduce production times and costs, making it easier to respond to urgent public health needs.

Strategic Partnerships:

Through its partnerships with organizations like **National Resilience**, the ADM has expanded its capacity and expertise, allowing it to take on more complex and large-scale projects. These partnerships enhance the overall capability of the U.S. to address both natural and man-made biological threats.

Comprehensive Support:

The ADM provides end-to-end support for MCM development, from early-stage research and development to large-scale manufacturing and regulatory approval. This comprehensive approach ensures that promising countermeasures can move quickly from the lab to deployment (JPEO CBRND).

Countermeasures produced by the DoD Advanced Development & Manufacturing (**ADM**):

Monoclonal Antibodies (mAbs) for Botulism Neurotoxin (BoNT): The ADM facility developed and manufactured mAbs to support Phase 1 clinical trials against Botulism Neurotoxin. This included submitting an Investigational New Drug (IND) application to the FDA, which was a significant milestone in the regulatory process.

Broad-Spectrum Medical Countermeasures:

The ADM has been involved in developing nonspecific medical countermeasures that can target a range of similar agents or symptoms. This includes the development of broad-spectrum antiviral drugs and immune-boosting therapies, which are crucial for addressing novel or emerging threats (Global Biodefense).

Rapid Development and Manufacturing:

The ADM facility is designed to rapidly convert new product suites and adapt to customer demands, employing single-use technologies that allow for faster batch changeovers and reduced production times. This flexibility supports the quick development and deployment of new countermeasures (Pharmaceutical Online).

Public-Private Partnerships:

The ADM operates under a public-private partnership model, leveraging the expertise of both large biopharmaceutical companies and smaller biotech firms. This arrangement ensures that the DoD can meet its unique needs while also supporting commercial production. This partnership has been pivotal in maintaining a state-of-the-art facility capable of responding to various biological threats (Pharmaceutical Online) (DVIDS).

Technology and Infrastructure:

The ADM facility includes advanced technologies such as cGMP-compliant and BSL-3 capable operations, single-use/disposable technologies, and an integrated manufacturing infrastructure. These features enable the production of a wide range of biologics, including vaccines, antitoxins, and antiviral drugs (Pharmaceutical Online) (DVIDS).

Bioweapons history of the DoD Advanced Development & Manufacturing (ADM)

The Department of Defense's Advanced Development and Manufacturing (ADM) initiative primarily focuses on the development and production of medical countermeasures (MCMs) against various biological threats, rather than on offensive bioweapons. However, it is part of the broader Chemical and Biological Defense Program (CBDP), which aims to protect military personnel and civilians from chemical and biological warfare.

History and Role in Biodefense

Establishment and Mission

2013: The DoD awarded a contract to establish the ADM facility to enhance the nation's capability to rapidly produce vaccines and therapeutics in response to emerging biological threats (DVIDS) (JPEO CBRND) The ADM has worked on developing countermeasures against a variety of biological threats, including bacterial and viral pathogens. Specific efforts include developing monoclonal antibodies and vaccines for threats like Botulinum neurotoxin and other potential bioweapons (Pharmaceutical Online) (Global Biodefense).

Monoclonal Antibodies for Botulinum Neurotoxin: The ADM developed and manufactured monoclonal antibodies to counteract Botulinum neurotoxin, a potential bioweapon. This included regulatory submissions and clinical trials, showcasing the facility's ability to produce high-priority medical countermeasures (DVIDS).

Notable diseases for which ADM has developed countermeasures:

Ebola: The DoD ADM facility, operated by Ology Bioservices, has been involved in the production of an anti-Ebola monoclonal antibody (mAb114). This effort was a collaboration with the Vaccine Research Center at the National Institutes of Health, funded in part by DARPA. The production included technology transfer and cGMP manufacturing to ensure rapid and efficient delivery of this critical countermeasure (BioSpace) (JPEO CBRND).

COVID-19: The ADM has played a significant role in the development and production of vaccines and therapeutics in response to the COVID-19 pandemic. This includes partnerships with various pharmaceutical companies to accelerate the manufacturing of vaccines under the Operation Warp Speed initiative, ensuring the rapid distribution of vaccines to combat the global pandemic (JPEO CBRND).

Anthrax: The DoD has developed countermeasures against anthrax, including vaccines and antitoxins, to protect military personnel and the public from potential bioterrorism threats involving Bacillus anthracis (Defense.gov).

Botulinum Toxin: The ADM has also focused on developing medical countermeasures for botulinum toxin exposure, including antitoxins that can neutralize the effects of this potent neurotoxin (Defense.gov).

Smallpox: Efforts have been made to produce vaccines and antiviral treatments for smallpox, a high-priority threat due to its potential use as a bioweapon (Defense.gov).

History of the Chemical and Biological Defense Program (CBDP)

The Chemical and Biological Defense Program (CBDP) is a key initiative of the U.S. Department of Defense (DoD) designed to protect military personnel from chemical and biological threats. Established in **1993** in response to the

Gulf War, the CBDP consolidated the previously fragmented chemical and biological defense efforts of the various military services into a unified program under the Office of the Secretary of Defense. This centralization was necessary to address interoperability issues and ensure a consistent level of protection across the armed forces (Defense.gov) (MRDC).

History and Evolution of the CBDP

1993: The CBDP was created by Congress following a government report highlighting the inadequacy of U.S. forces in handling Iraq's chemical and biological warfare capabilities during the Gulf War. The program unified the disparate chemical and biological defense efforts across the military services into a single, coordinated initiative (Defense.gov).

1990s–2000s: The program focused on developing detection systems, personal protective gear, decontamination equipment, and medical countermeasures, including vaccines and treatments for specific chemical and biological agents (Defense.gov).

2010s: The threat landscape evolved with advancements in biotechnology and the emergence of new potential adversaries capable of engineering novel biological agents. The program adapted by enhancing research and development efforts and incorporating new technologies like artificial intelligence and high-performance computing to stay ahead of these threats (Defense.gov) (MRDC).

2020s: The CBDP continues to adapt to the changing nature of threats. In 2021, Secretary of Defense Lloyd J. Austin III expanded the program's focus to include naturally occurring and accidentally released agents, in addition to traditional deliberate threats. This broader scope necessitates a shift from the traditional "one bug, one drug" approach to developing broad-spectrum countermeasures that can address a wide array of potential threats (Defense.gov) (Defense.gov).

Key Components and Achievements:

Detection and Early Warning: The CBDP has developed advanced detection systems to provide early warning of chemical and biological threats, crucial for protecting personnel and mitigating the effects of an attack.

Medical Countermeasures: The program has successfully produced a range of medical countermeasures, including vaccines and therapeutics, to protect against specific biological and chemical agents. This includes developing nonspecific medical countermeasures that can provide initial protection against novel agents until more targeted solutions are available (MRDC) (JPEO CBRND).

Interoperability and Standardization: One of the major achievements of the CBDP is the standardization of equipment and protocols across the different branches of the military, ensuring that all personnel have access to the same level of protection and can operate seamlessly together during a chemical or biological incident (Defense.gov) (JPEO CBRND).

Timeline history of the USAMRDC and how it relates to: DARPA, JPEO-CBRND, and the Special Immunization Program.

The U.S. Army Medical Research and Development Command (USAMRDC) has a comprehensive history intertwined with various military and civilian research entities. Here's a timeline highlighting its evolution and relationship with the Defense Advanced Research Projects Agency (DARPA), the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense (JPEO-CBRND), and the Special Immunization Program (SIP).
Timeline of USAMRDC

1958: Established as the U.S. Army Medical Research and Development Command to centralize medical research efforts for the Army.

1994: Renamed to U.S. Army Medical Research and Materiel Command (USAMRMC) to reflect a broader mission that included medical logistics.

2019: Transitioned back to the U.S. Army Medical Research and Development Command (USAMRDC), reflecting a renewed focus on research and development.

Key Programs and Relationships

DARPA:

USAMRDC collaborates with DARPA on various medical and biotechnological research projects. DARPA often funds high-risk, high-reward research which USAMRDC can further develop and translate into practical military applications.

JPEO-CBRND:

JPEO-CBRND and USAMRDC work closely together in developing countermeasures against chemical, biological, radiological, and nuclear threats. USAMRDC provides the scientific research foundation, while JPEO-CBRND manages the acquisition and deployment of these countermeasures.

Special Immunization Program (SIP):

This program, managed under USAMRDC, provides vaccines and treatments for military personnel at high risk of exposure to exotic pathogens. SIP is essential for protecting troops deployed in areas where these diseases are endemic.

Achievements and Contributions

USAMRDC

Vaccines and Treatments: Development of vaccines for diseases such as anthrax, Ebola, and other hemorrhagic fevers.

Medical Devices: Innovations in combat casualty care, including advanced bandages and field hospital technologies.

Biomedical Research: Contributions to infectious disease research, neurotrauma, and psychological health.

USAMRDC's collaboration with organizations like DARPA and JPEO-CBRND ensures a comprehensive approach to addressing both emerging and established threats. The integration of research, development, and acquisition within these relationships maximizes the effectiveness of medical countermeasures provided to U.S. military personnel.

Relationship between the USAMRDC, NATICK and the Aberdeen Proving Grounds

The U.S. Army Medical Research and Development Command (USAMRDC) collaborates closely with various military research facilities, including the U.S. Army Natick Soldier Systems Center (Natick) and Aberdeen Proving Ground (APG). These collaborations are essential for developing integrated solutions to enhance soldier performance, health, and protection.

Relationship with Natick

U.S. Army Natick Soldier Systems Center (Natick)

Focus: Natick specializes in researching, developing, and fielding food, clothing, shelter, and other support systems to enhance soldier survivability and effectiveness.

Collaboration: USAMRDC and Natick collaborate on projects related to soldier health and performance. For example, USAMRDC provides medical research support to Natick's efforts in developing advanced soldier protective gear and nutrition solutions. This partnership ensures that the physiological impacts of new equipment and rations are thoroughly evaluated and optimized for health and performance.

Relationship with Aberdeen Proving Ground

Aberdeen Proving Ground (APG) Focus: APG is a major Army installation focused on research, development, testing, and evaluation (RDT&E) of military weapons, equipment, and technologies. It houses multiple research facilities and commands, including the U.S. Army Combat Capabilities Development Command (CCDC).

Collaboration: USAMRDC works with APG on testing and evaluating medical countermeasures, protective equipment, and other technologies to ensure they meet the operational requirements of the Army. This includes testing the effectiveness and safety of new medical treatments, vaccines, and protective gear.

Examples: Joint efforts in testing the durability and effectiveness of new medical technologies under various environmental conditions. Collaboration in developing decontamination methods and equipment for use in chemical and biological threat scenarios.

Chemical and Biological Defense: Development and testing of decontamination systems and protective gear to safeguard against chemical and biological threats, combining USAMRDC's medical expertise with APG's testing capabilities and Natick's materials research.

A Timeline of US Bioweapons Research History [1970–2004]

1970: President Richard Nixon's orders in 1969 led to the destruction of U.S. biological warfare stockpiles, culminating in 1971-1972. This included antipersonnel agents and biological anticrop agents (Wikipedia).

Early 1970s: Fort Detrick's mission transitioned from offensive biological warfare to defensive research and development of medical countermeasures (Wikipedia).

1972: The Biological Weapons Convention (BWC) was signed, prohibiting the development, production, and stockpiling of biological weapons.

1984: The Department of Defense (DoD) requested funds for a new biological aerosol test facility in Utah. The plan faced public opposition, leading to revised proposals that included more oversight and regulation (Wikipedia).

1989: The United States reaffirmed its commitment to the BWC and emphasized the development of defensive measures against biological threats.

1990s: USAMRIID (United States Army Medical Research Institute of Infectious Diseases) at Fort Detrick became the primary facility for the U.S. medical biological defense research effort. The institute maintained state-of-the-art containment facilities, including BSL-3 and BSL-4 laboratories, crucial for high-level containment and research on dangerous pathogens (Wikipedia).

1991: Following the Gulf War, there was increased emphasis on biodefense due to concerns about Iraq’s biological weapons capabilities.

1995: During the Ebola outbreak in Zaire, the Aeromedical Isolation Team (AIT) remained on alert to evacuate U.S. citizens if needed (Wikipedia).

2001: The anthrax attacks in the United States heightened awareness and urgency in biodefense research and response capabilities.

2004: The establishment of the National Biodefense Analysis and Countermeasures Center (NBACC) to address biological threats comprehensively, marking a significant expansion in the U.S. biodefense infrastructure.

Relationship to Key Institutions

USAMRDC (U.S. Army Medical Research and Development Command):

USAMRDC oversees and coordinates research and development in medical defense, including infectious disease research conducted at USAMRIID.

DARPA (Defense Advanced Research Projects Agency): Collaborates with USAMRDC on advanced research projects, including those related to biodefense and emerging infectious diseases.

JPEO-CBRND (Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense): Works with USAMRDC to develop and field countermeasures against chemical and biological threats.

Special Immunization Program: Managed by USAMRIID under USAMRDC, this program provides vaccinations to personnel at risk of exposure to hazardous pathogens.

NATICK (U.S. Army Natick Soldier Research, Development, and Engineering Center): USAMRDC and NATICK collaborate on developing protective gear and medical countermeasures to protect soldiers from biological threats.

Aberdeen Proving Ground:

Houses several military research facilities, including those focused on chemical and biological defense. Works in conjunction with USAMRDC to test and develop protective measures and countermeasures.

NATICK, the Army's ACC, Edgewood Arsenal, and Aberdeen Proving Grounds

NATICK Soldier Systems Center:

Mission: The NATICK Soldier Systems Center, located in Natick, Massachusetts, is a premier research and development facility for the U.S. Army focused on improving soldier survivability, sustainability, mobility, combat effectiveness, and quality of life.

Focus Areas: It specializes in research and development of food, clothing, shelter, airdrop systems, and soldier protection systems.

Army Contracting Command (ACC)

Mission: The ACC, including its division at Aberdeen Proving Ground (ACC-APG), provides comprehensive contracting support to the U.S. Army. This includes acquiring goods, services, and technologies essential for military operations and modernization.

Role at APG: ACC-APG supports various research and development activities at Aberdeen Proving Ground, including those associated with Edgewood Arsenal.

Edgewood Arsenal

History: Established in 1917, Edgewood Arsenal is part of Aberdeen Proving Ground (APG) in Maryland. It has historically been involved in the development, production, and testing of chemical warfare agents.

Modern Role: Today, it is home to the U.S. Army Chemical Biological Center (CBC), which focuses on chemical and biological defense research and development. The CBC is involved in developing protective measures and countermeasures against chemical and biological threats.

Aberdeen Proving Ground (APG)

History: APG, established in 1917, is one of the U.S. Army's oldest active proving grounds. It is a major site for the testing and evaluation of military weapons, equipment, and technologies.

Components: APG is divided into several areas, including the Aberdeen Area and Edgewood Area. The Edgewood Area specifically focuses on chemical and biological defense research.

Key Activities: APG hosts a wide range of activities, including research, development, testing, and evaluation of various military technologies. It also supports the development of protective measures for soldiers, such as those researched at NATICK.

Interrelationships:

Research and Development: NATICK, Edgewood Arsenal, and APG collectively contribute to the Army's research and development efforts. NATICK focuses on soldier systems, while Edgewood Arsenal (within APG) concentrates on chemical and biological defense.

Contracting Support: The ACC-APG facilitates the procurement of technologies and services essential for the research and development activities conducted at NATICK and Edgewood Arsenal.

Integrated Defense Efforts: The combined efforts of these institutions support the Army's overall mission to enhance soldier safety and effectiveness through advanced research and development in various fields, including protective clothing, chemical defense, and other soldier systems.

This integrated approach ensures that the Army leverages specialized capabilities across different centers to develop comprehensive solutions for modern warfare challenges (Wikipedia) (VA.gov | Veterans Affairs).